Remarks

Status of the Claims

Claims 1, 8, 11 and 12 have been amended. Claims 5-7, 10 and 17-23 stand withdrawn. New claims 24, 25 and 26 have been added. Claims 1-4, 8, 9, 11-15 and 24-26 are active in the application. Claims 1, 8 and 11 are independent claims.

As used herein, references to the Office Action are indicated in brackets as such: (para. X), and refer to paragraphs in the subject Office Action.

Claims 1-4, 8-9 and 11-15 stand rejected under 35 U.S.C. §112 as failing to comply with the written description requirement. (Para. 2.)

Claims 11-13 and 15 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Hossainy et al. (Para. 6.)

Claims 1-4, 8 and 14 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Hossainy et al. in view of Versteeg et al. (Para. 7.)

Claim 9 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Hossainy et al. in view of Versteeg et al. and further in view of Tedeschi et al..

Applicant's Amendments

While Applicants respectfully disagree with the Examiner regarding the teaching of dimensions by the specification, for the purpose of expediting the prosecution of the subject Application at this time, Applicants have amended each of claims 1, 8 and 11 to delete the dimensional limitations. Applicants expressly reserve the right to pursue these claim limitations at a future time.

Claims 1, 8 and 11 have been amended to recite the step of controlling the pressure in the vacuum chamber to form a cloud of micro-droplets that isotropically impact on the substrate. No new matter has been added. See, for example, the specification at pages 6 and 7.

New claims 24, 25 and 26 have been added to recite steps for controlling the pressure to control the vaporization of volatile compounds (claims 24 and 25) and the rate of drying of the organic compound (claim 26). No new matter has been added. See, for example, the specification at pages 4-7.

The Cited Art as Applied by the Examiner

In applying Hossainy et al. as the principal reference in rejecting claims 1, 8 and 11, the Examiner has cited specifically Example 6, contained in patent columns 11 and 12. More particularly, the Examiner states that the reference teaches the use of the same nozzle type, droplet size, volatile liquid, cloud coating formation and substrate as Applicants. The Examiner further states that the pressure is inherently controlled. The Examiner concludes that the micro-droplets of Hossainy et al. must inherently impact isotropically on the surface of the stent in the same manner as Applicant's method. (Para. 6.)

Noting that Hossainy et al. fails to teach the mechanism and specifics of the use of an evaporation-control device, the Examiner states that it would have been obvious to one of ordinary skill in the art to use the metering, evacuating, etc. conditions of Versteeg et al. in the method of Hossainy et al. to provide reproducible, uniform coatings in the method of Hossainy et al.. (Para. 7.)

The Examiner cites Tedeschi et al. as teaching the coating of stents with a derivatized silane polymer with drugs incorporated therein, a limitation failing to be taught by Hossainy et al. in view of Versteeg et al.. (Para. 9.)

Applicant's Comments and Arguments

Applicants respectfully traverse the Examiner's interpretation, combination and application of the cited art.

With respect to Hossainy et al., in Example 6, the reference specifically states that containment of the ultrasonic spray was in a plastic bag (col. 12, lines 5-7) for the purpose of eliminating air currents and slowing evaporation. Applicants submit that this configuration, contained in a plastic bag, cannot inherently control pressure as recited in the amended claims, and cannot generate the claimed isotropic, micro-droplet deposition of the present invention. The Examiner is referred to Hossainy et al., column 2, lines 6-8 and lines 15-20, wherein the patent expressly states that the coating mechanism is based upon fluid flow through passages sufficient to prevent blocking. This is in contrast to applicant's claimed micro-droplet coating process as achieved through appropriate control of the pressure as recited in the amended claims.

Versteeg et al. clearly teaches and requires that the substrate coating result from a chemical vapor deposition (CVD) process. As noted in Applicant's discussion of Versteeg et al. (see Applicant's Background, page 3, para. 1), CVD is generally applied to coat a flat surface. In fact, in Versteeg et al. the patent shows substrate 16 mounted on a heater 18, in a conventional manner, such that only the upper flat surface is exposed. In contrast to Versteeg et al.'s teachings, Applicant's claimed process is not a chemical vapor deposition process, but rather the described and claimed micro-droplet coating process applied to conformally coat a three-dimensional substrate. Versteeg et al. does not show or suggest the micro-droplet coating process taught and claimed by Applicants.

Applicants respectfully disagree with the Examiner's combination of Hossainy et al. and Versteeg et al. as appropriate because both coat substrates with organic materials using the same coaters (Para. 7). Hossainy et al. expressly teaches a fluid flow process contained in a plastic bag while Versteeg et al. teaches a CVD process. Nothing in either reference, neither explicitly nor implicitly, suggests that the plastic bag-contained Hossainy et al. system would function, much less benefit from, the use of metering, evacuating and purging as taught in the Versteeg et al. CVD process.

In summary, Applicant's amended claims recite process steps including controlled pressure to provide isotropic micro-droplet deposition which is nowhere shown or suggested in the cited art. Applicant's claimed invention distinguishes over the Hossainy et al. reference both in physical form and in operational result. Versteeg et al. adds nothing to overcome this distinction.

The dependent claims are submitted to be patentable as depending from allowable independent claims, with Applicants expressly reserving the right to argue the patentability of the dependent claims at a later date.

In light of the above amendments and remarks, Applicants respectfully submit that the active claims in the present application are in condition for allowance.

Accordingly, Applicants request entry of this Amendment and a timely allowance of the active claims.

Respectfully submitted,

Date: 9/2/2005

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